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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/884,925	06/21/2001	Jack Chen	MSI P0054 USA	3893

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BERKELEY LAW & TECHNOLOGY GROUP, LLP  
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EXAMINER
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VILLECCO, JOHN M

ART UNIT	PAPER NUMBER
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2622

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/28/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

09/884,925

Applicant(s)

CHEN ET AL.

Examiner

John M. Villecco

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 15-21 and 28-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 15-21 and 28-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 2, 2007 has been entered.

### ***Response to Argument***

2. Applicant's arguments, see page 14 of the applicant's response, filed February 2, 2006, with respect to the rejection(s) of claim(s) 15-17, 35-37, and 39-41 under 35 U.S.C. 102 have been fully considered and are persuasive. In particular, the examiner agrees that Berstis fails to disclose producing a file comprising image and sound information. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Kusaka et al. (U.S. Publ. No. 2003/0012559). However, applicant also argues that Berstis does not disclose "a sound pickup device capable of generating a sound digital signal and a voice signal capable of being used in a voice recognition routine". The examiner disagrees with this assertion. Berstis does disclose a sound pickup device (microphone, 210) capable of generating a sound signal and a voice signal (see col. 3, lines 29-37).

3. Please see the new grounds of rejection using the Kusaka reference on the following pages.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 15-17, 35-37, and 39-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berstis (U.S. Patent No. 6,721,001) in view of Kusaka et al. (U.S. Publ. No. 2003/0012559).**

6. Regarding *claim 15*, Berstis discloses a digital camera with voice recognition annotation. More specifically, Berstis discloses a an image pickup device (image sensor, 204) for receiving an image signal and transforming it into a first analog signal, a sound pickup device (microphone, 210) for receiving a sound signal and transforming it into a second analog signal, a first A/D converter (A/D converter, 206) connected to the image pickup device (image sensor, 204) for converting the first analog signal to a first digital signal, a second A/D converter (A/D converter, 212) connected to the sound pickup device (microphone, 210) for converting the second analog signal into a second digital signal, and a processor (microprocessor, 208) connected to the first and second A/D converters (206, 212) for producing stored image and sound data. See Figure 2 and column 2, line 51 to column 3, line 8. The voice recognition unit (224) uses voice recognition data (225) to generate text annotations to associate with each image. In this embodiment the voice recognition data is interpreted to be the predetermined data. See

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column 3, lines 40-54. In response to the voice recognition data matching a predetermined criteria, the images and voice and/or text data are stored in blocks and associated with each other.

Berstis, however, fails to specifically disclose generating a file consisting of image and sound data in response to the voice recognition data matching the predetermined criteria.

Kusaka, on the other hand, discloses that it is well known in the art to generate files consisting of image and sound data. More specifically, Kusaka discloses a file that is generated via a digital still camera or digital video camera that includes multiplexed image and sound data. See paragraph 0062. One of ordinary skill in the art would recognize that this type of file allows image and sound data to easily be associated with each other for reproduction. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to generate a multimedia data file after analyzing the sound data in Berstis so that the image and sound data are easily stored and associated with each other.

7. As for **claim 16**, Berstis discloses a lens (202) and an image sensor (204) for generating the first analog signal. Berstis discloses that the image sensor can be a CCD or CMOS image sensor, which inherently would include a photoelectric converting element.

8. With regard to **claim 17**, Berstis discloses that the image sensor (204) can be a CCD. See column 2, lines 57-58.

9. As for **claim 35**, Berstis discloses a digital camera with voice recognition annotation. More specifically, Berstis discloses a an image pickup device (image sensor, 204) for receiving an image signal and transforming it into a first analog signal, a sound pickup device (microphone, 210) for receiving a sound signal and transforming it into a second analog signal, a first A/D converter (A/D converter, 206) connected to the image pickup device (image sensor,

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204) for converting the first analog signal to a first digital signal, a second A/D converter (A/D converter, 212) connected to the sound pickup device (microphone, 210) for converting the second analog signal into a second digital signal, and a processor (microprocessor, 208) connected to the first and second A/D converters (206, 212) for producing stored image and sound data. See Figure 2 and column 2, line 51 to column 3, line 8. Additionally, Berstis discloses the ability to capture voice data. The camera is capable of capturing sound data and interpreting that sound data into text if the voice recognition data matches a predetermined criteria. The voice recognition unit (224) uses voice recognition data (225) to generate text annotations to associate with each image. In this embodiment the voice recognition data is interpreted to be the predetermined data. See column 3, lines 40-54. In response to the voice recognition data matching a predetermined criteria, the images and voice and/or text data are stored in blocks and associated with each other.

Berstis, however, fails to specifically disclose generating a multimedia data file consisting of image and sound data in response to the voice recognition data matching the predetermined criteria. Kusaka, on the other hand, discloses that it is well known in the art to generate files consisting of image and sound data. More specifically, Kusaka discloses a file that is generated via a digital still camera or digital video camera that includes multiplexed image and sound data. See paragraph 0062. One of ordinary skill in the art would recognize that this type of file allows image and sound data to easily be associated with each other for reproduction. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to generate a multimedia data file after analyzing the sound data in Berstis so that the image and sound data are easily stored and associated with each other.

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10. As for *claim 36*, Berstis discloses a lens (202) and an image sensor (204) for generating the first analog signal. Berstis discloses that the image sensor can be a CCD or CMOS image sensor, which inherently would include a photoelectric converting element.

11. With regard to *claim 37*, Berstis discloses that the image sensor (204) can be a CCD. See column 2, lines 57-58.

12. Regarding *claim 39*, Berstis discloses using an image sensor. It is common knowledge that reading charge out of an image sensor is called scanning. Thus, the image sensor is a scanning device.

13. *Claim 40* is considered substantively equivalent to claim 35. Please see the discussion of claim 35 on the preceding pages.

14. *Claim 41* is considered substantively equivalent to claim 36. Please see the discussion of claim 36 on the preceding pages.

15. **Claims 18 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berstis (U.S. Patent No. 6,721,001) in view of Kusada et al. (U.S. Publ. No. 2003/0012559) and further in view of Maxium Technologies (Internet Publication, 2000).**

16. Regarding claims 18 and 38, as mentioned above in the discussion of claim 16 and 35, respectively, the combination of Berstis and Kusada discloses all of the limitations of the parent claim. However, the combination of the aforementioned references fails to explicitly state that the image sensor is a CIS. The Maxium Technologies Publication on the other hand, discloses that the use of contact image sensors (CIS) is well known in the art. The integration of CIS image sensors reduces the space needed for other components allowing for thinner and lighter

products. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a CIS image sensor instead of the CCD image sensor in Berstis so that the camera is made smaller and lighter.

17. **Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Berstis (U.S. Patent No. 6,721,001) in view of Kusada et al. (U.S. Publ. No. 2003/0012559) and further in view of Ochi et al. (U.S. Patent No. 6,233,014).**

18. Regarding *claim 19*, as mentioned above in the discussion of claim 16, the combination of Berstis and Kusada discloses all of the limitations of the parent claim. However, the combination of the aforementioned references fails to explicitly disclose a reflection mirror for transmitting the image signal to the lens. Ochi, on the other hand, discloses that it is well known in the art to include a mirror for directing incoming light to a lens. More specifically Ochi discloses a mirror (14) for directing the incoming light to a lens (17). See Figure 1 and column 4, lines 18-29. This camera arrangement serves as an alternative arrangement for capturing an image. A line sensor camera can be made cheaper and smaller than a full image sensor camera. See column 4, lines 26-29. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to construct the camera of Berstis in a manner similar to Ochi so that the camera can be made more cheaply and smaller.

19. **Claims 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berstis (U.S. Patent No. 6,721,001) in view of Kusada et al. (U.S. Publ. No. 2003/0012559) and further in view of Haranishi (U.S. Patent No. 5,764,779).**



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20. Regarding **claim 20**, as mentioned above in the discussion of claim 15, the combination of Berstis and Kusada discloses all of the limitations of the parent claim. The aforementioned reference, however, fail to explicitly state that the microphone includes a filter for filtering off a noise signal from the analog signal. Haranishi, on the other hand, discloses that it is well known in the art to provide filters in a microphone for filter off noise. More specifically, Haranishi discloses a bandpass filter (2) for filter out noise from a microphone (1) and allowing only desired frequencies to pass. This feature allows for the microphone to only allow frequencies of the human voice to pass, thus increasing the quality of the signal. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a filter in the microphone of Hashimoto so that a higher quality sound signal is generated.

21. As for **claim 21**, Haranishi discloses only allowing frequencies of the human voice to pass through the bandpass filter (2). See the abstract.

22. **Claims 28, 29, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto et al. (U.S. Patent No. 6,111,604) in view of Allen et al. (U.S. Patent No. 5,737,491).**

23. Regarding **claim 28**, Hashimoto discloses a digital camera capable of detecting connection to an external device and transmitting image and sound data to the external device. More specifically, Hashimoto discloses an image pickup device (photographing portion, 6) for generating a image digital signal of an object, a sound pickup device (microphone, 1 and A/D converter, 4) for generating a sound digital signal, a multiplexer and a processor (CPU, 23 and FIFO circuit, 23) for combining the digital image and sound signals and producing a single file

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for transmission to the external device. Additionally, Hashimoto discloses that the camera is capable of capturing voice data, since it is inherent that when capturing audio voices may be part of that audio.

Hashimoto, however, fails to explicitly disclose producing the multimedia image file if the sound signal matches predetermined data. Allen on the other hand, discloses that it is well known in the art to input audio information indicating a processing action. More specifically, Allen discloses that after capturing an image, the user verbally instructs the camera to perform certain functions. This is done by comparing the words spoken by the user to a code book (25). After recognizing the word, the word is appended to the image and sent to the fulfillment server (34) or carried out by the camera (col. 4, line 20). Thus, when used in combination with Hashimoto, when a user enters a verbal command of “send to” or “transfer” as shown in Table 1 of Allen, the camera of Hashimoto would create the transfer file disclosed by Hashimoto. By allowing a user to verbally enter instructions, image processing or transfer can be accomplished faster and more speedily (col. 1, lines 57-59). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to allow the user of the camera of Hashimoto to enter commands verbally so that processing and transmission can occur faster.

24. As for **claim 29**, Hashimoto discloses an A/D converter (4) for converting the analog signal from the CCD (9) to the image digital signal and another A/D converter (4) for converting a sound analog signal from the microphone (1) to the sound digital signal.

25. With regard to **claim 34**, as mentioned above in the discussion of claim 28, the combination of Hashimoto and Allen discloses all of the limitations of the parent claim. While both Hashimoto and Allen disclose the use of a CPU (23) and microprocessor (20), respectively,

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neither of the aforementioned reference specifically discloses that the processor produces the multimedia file via a multitasking operation. Official Notice is taken as to the fact that it is well known in the art that CPU's commonly perform applications or operations via a multitasking function. Multitasking operations allow for multiple tasks to be carried out virtually simultaneously by sharing the CPU time per application. Therefore, it would have been obvious to enable the CPU or microprocessor of the camera of Hashimoto or Allen to generate the multimedia data file via a multitasking operation so that the CPU can carry out more than one operation at a time.

**26. Claims 30 and 31 rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto et al. (U.S. Patent No. 6,111,604) in view of Allen et al. (U.S. Patent No. 5,737,491) and further in view of Ochi et al. (U.S. Patent No. 6,233,014).**

27. Regarding *claim 30*, as mentioned above in the discussion of claim 29 the combination of Hashimoto and Allen discloses all of the limitations of the parent claim. Additionally, Hashimoto discloses a lens (6) and an image sensor (9) for generating an analog signal. However, Berstis fails to explicitly disclose a reflection mirror for transmitting the image signal to the lens. Ochi, on the other hand, discloses that it is well known in the art to include a mirror for directing incoming light to a lens. More specifically Ochi discloses a mirror (14) for directing the incoming light to a lens (17). See Figure 1 and column 4, lines 18-29. This camera arrangement serves as an alternative arrangement for capturing an image. A line sensor camera can be made cheaper and smaller than a full image sensor camera. See column 4, lines 26-29. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention

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was made to construct the camera of Berstis in a manner similar to Ochi so that the camera can be made more cheaply and smaller.

28. As for *claim 31*, Hashimoto discloses that the image sensor (9) is a CCD.

29. **Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto et al. (U.S. Patent No. 6,111,604) in view of Allen et al. (U.S. Patent No. 5,737,491) and further in view of Ochi et al. (U.S. Patent No. 6,233,014) and Maxium Technologies (Internet Publication, 2000).**

30. Regarding *claim 32*, as mentioned above in the discussion of claim 30, Hashimoto discloses all of the limitations of the parent claim. However, Hashimoto fails to explicitly state that the image sensor is a CIS. The Maxium Technologies Publication on the other hand, discloses that the use of contact image sensors (CIS) is well known in the art. The integration of CIS image sensors reduces the space needed for other components allowing for thinner and lighter products. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a CIS image sensor instead of the CCD image sensor in Hashimoto so that the camera is made smaller and lighter.

31. **Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto et al. (U.S. Patent No. 6,111,604) in view of Allen et al. (U.S. Patent No. 5,737,491) and further in view of Haranishi (U.S. Patent No. 5,764,779).**

32. Regarding *claim 33*, as mentioned above in the discussion of claim 29, Hashimoto discloses all of the limitations of the parent claim. Hashimoto, however, fails to explicitly state

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that the microphone includes a filter for filtering off a noise signal from the analog signal.


Haranishi, on the other hand, discloses that it is well known in the art to provide filters in a microphone for filter off noise. More specifically, Haranishi discloses a bandpass filter (2) for filter out noise from a microphone (1) and allowing only desired frequencies to pass. This feature allows for the microphone to only allow frequencies of the human voice to pass, thus increasing the quality of the signal. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a filter in the microphone of Hashimoto so that a higher quality sound signal is generated.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John M. Villecco whose telephone number is (571) 272-7319. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



John M. Villecco  
February 22, 2007